

FIG. 1

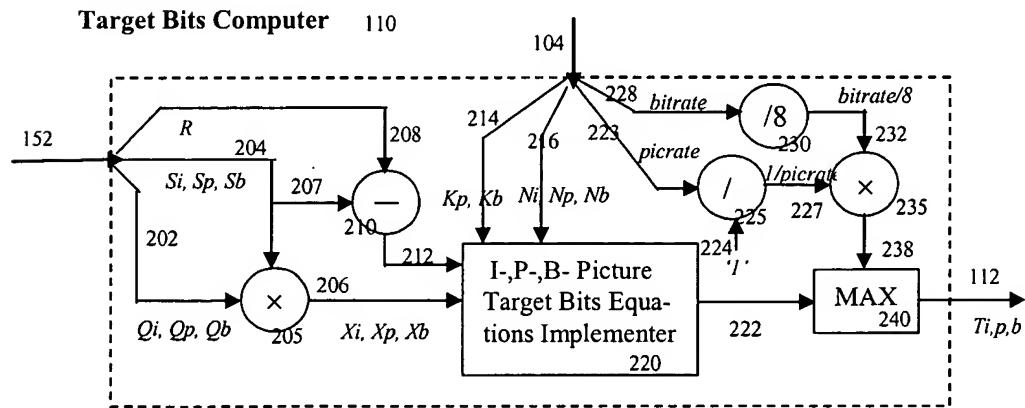


FIG. 2A

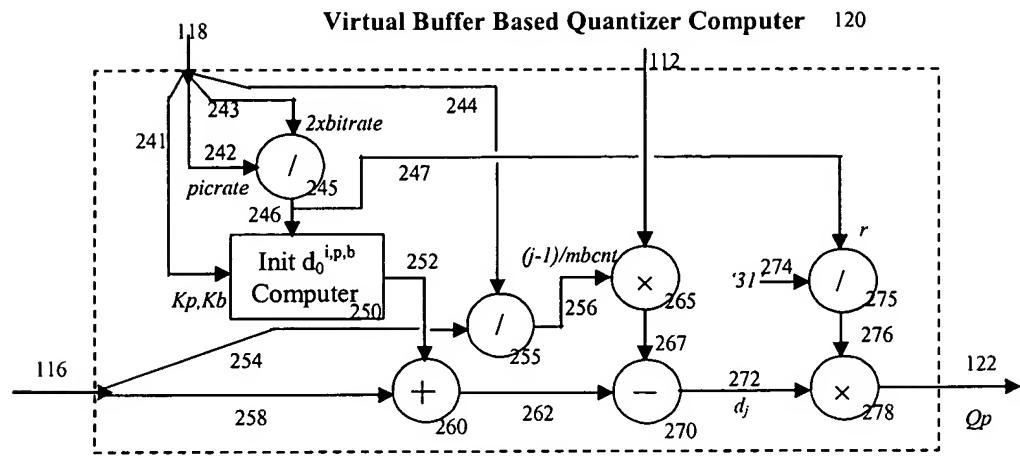


FIG. 2B

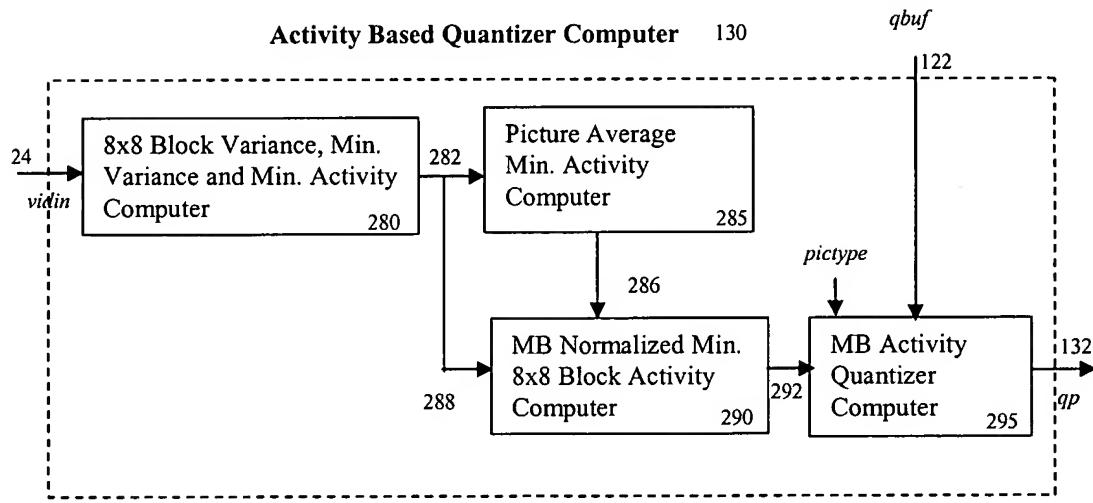


FIG. 2C

H.264/MPEG-4 AVC ENCODER WITH RQC RATE CONTROLLER 300

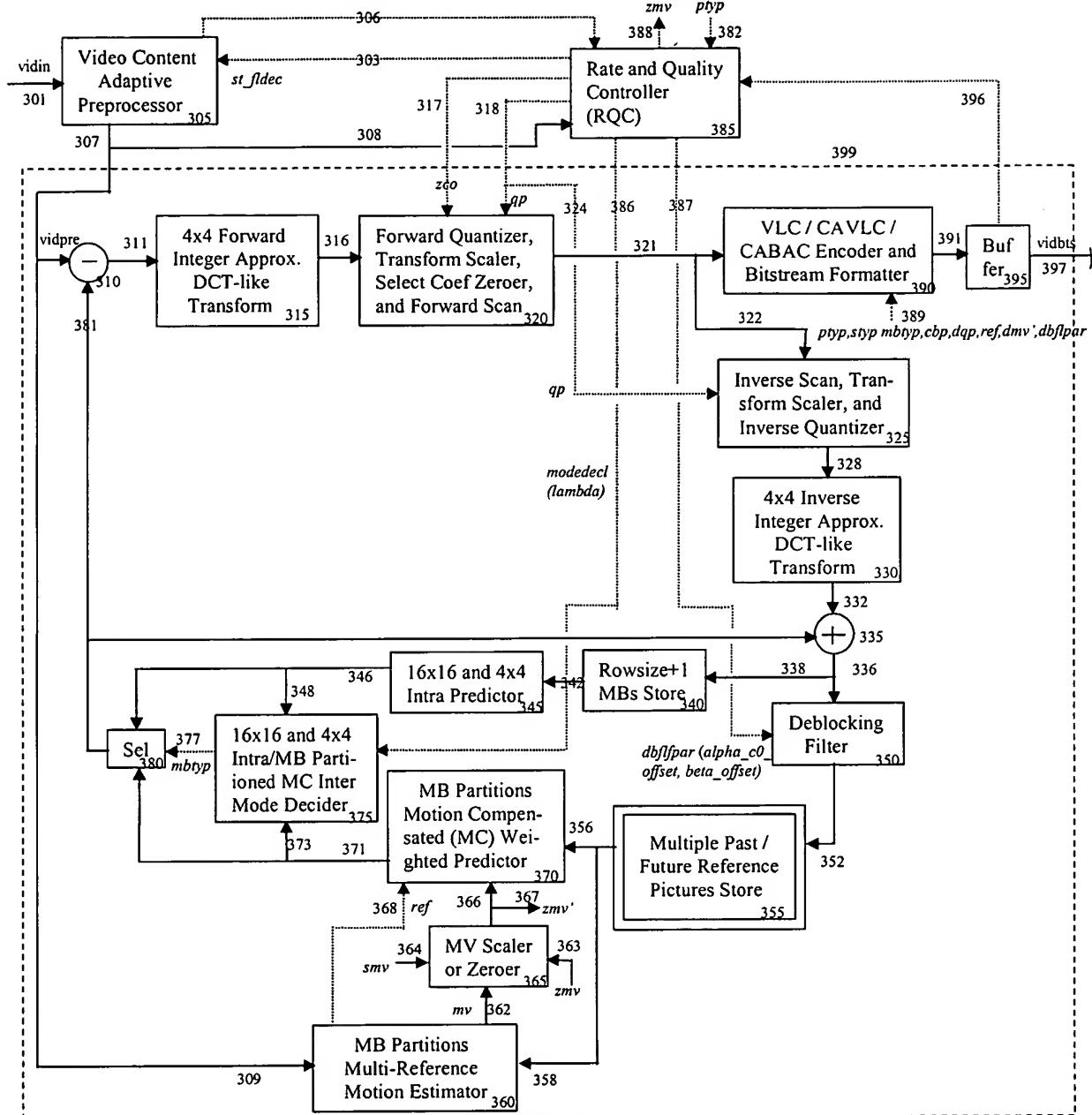


FIG. 3

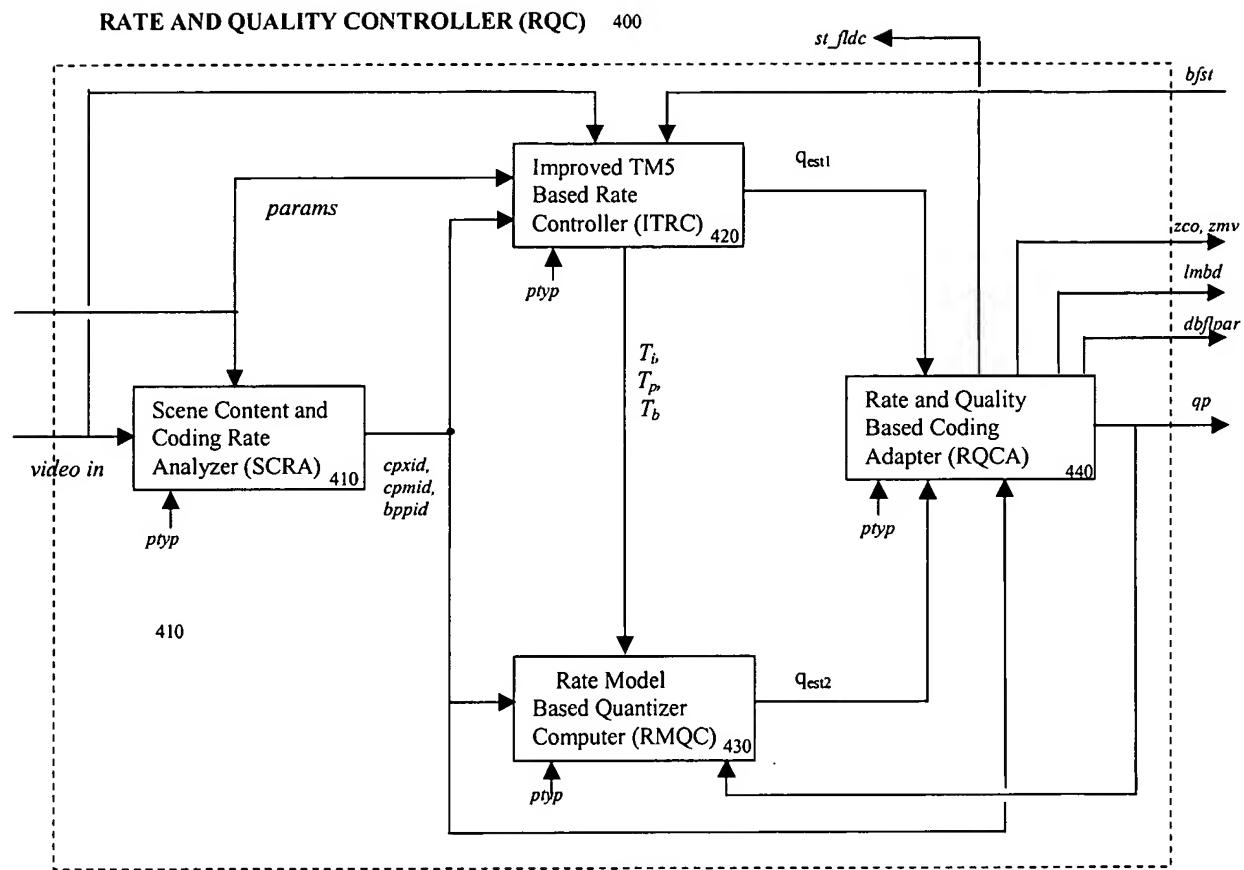


FIG. 4

RATE AND QUALITY CONTROLLER - Details

385

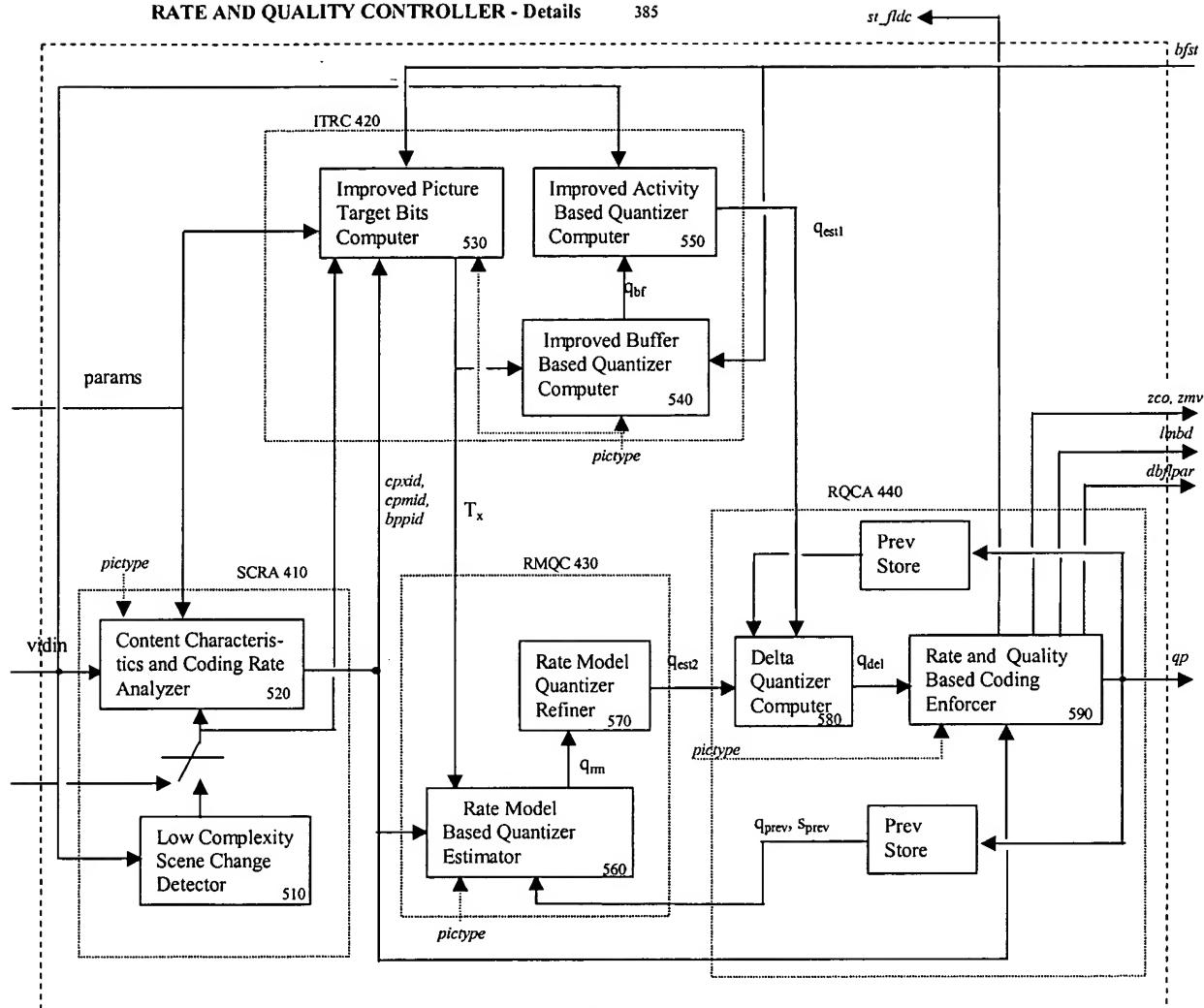


FIG. 5

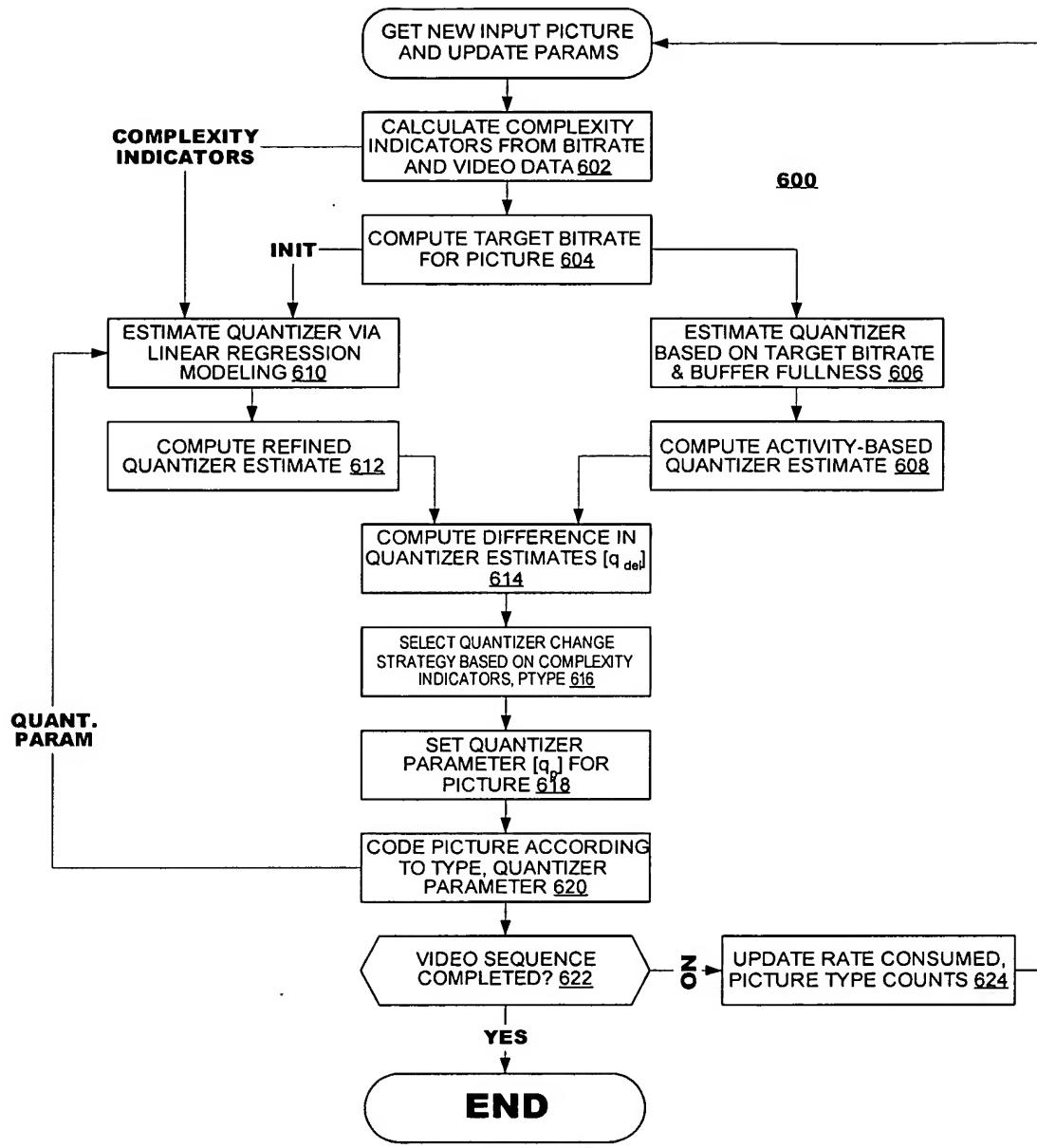


FIG. 6A

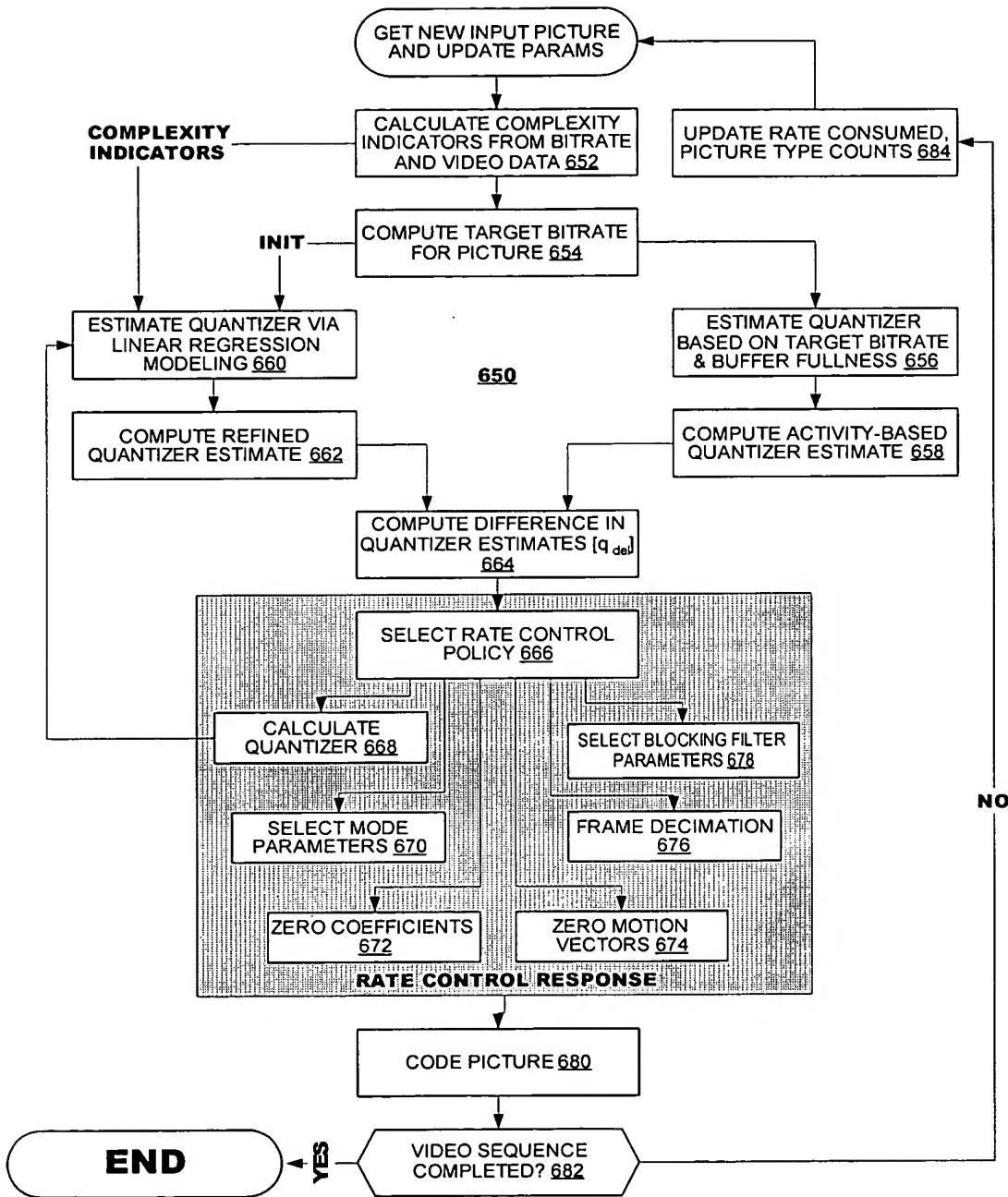


FIG. 6B

700—Video frames coding order when employing 2 B-frame coding structure

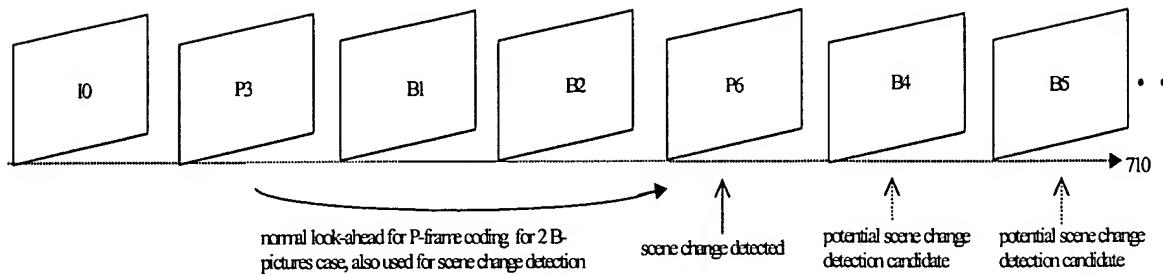


FIG. 7

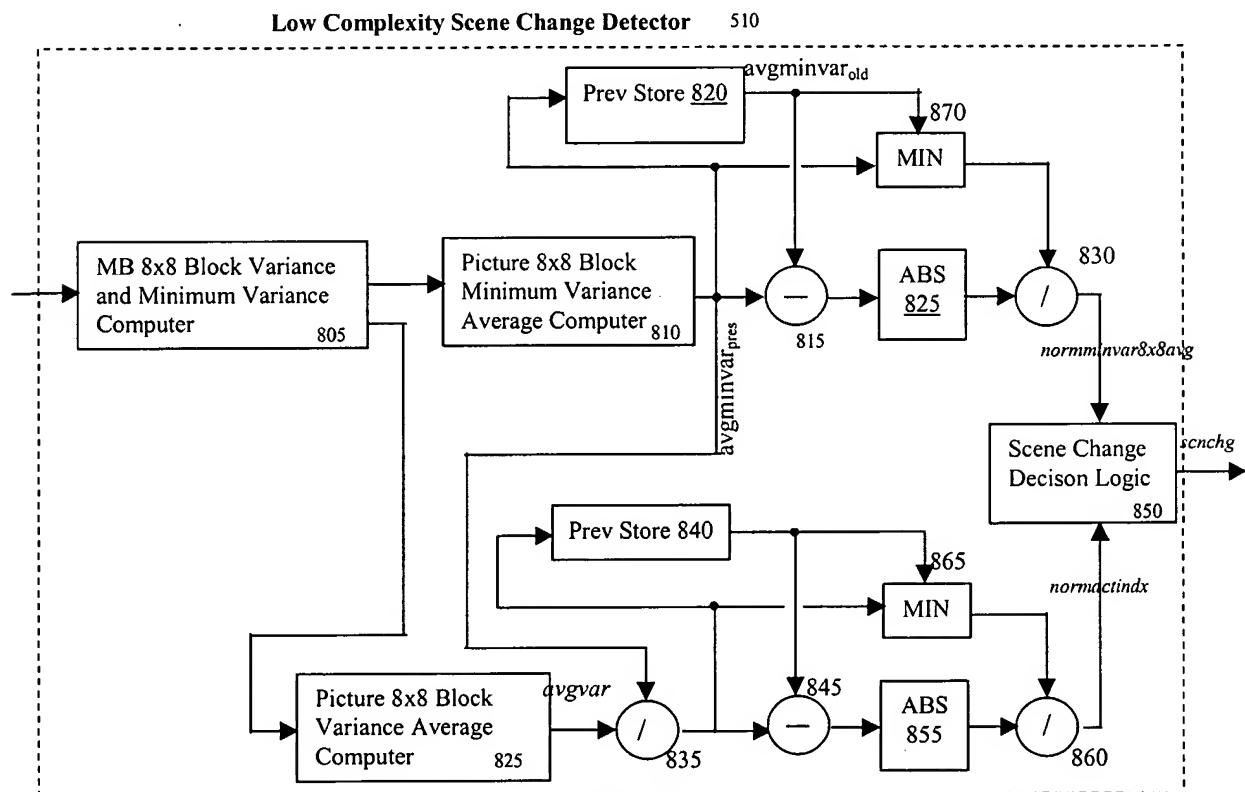


FIG. 8A

850

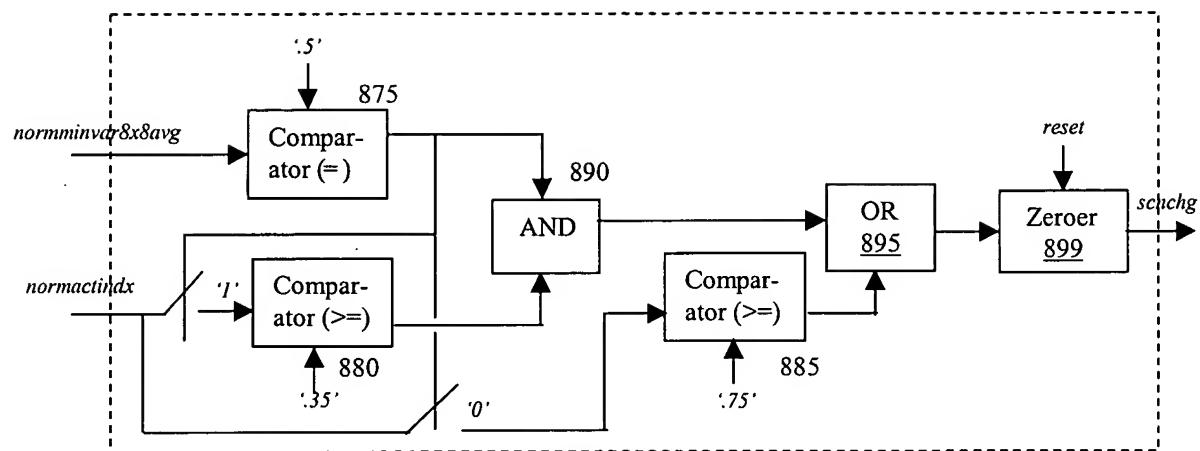


FIG. 8B

Content Characteristics and Coding Rate Analyzer 520

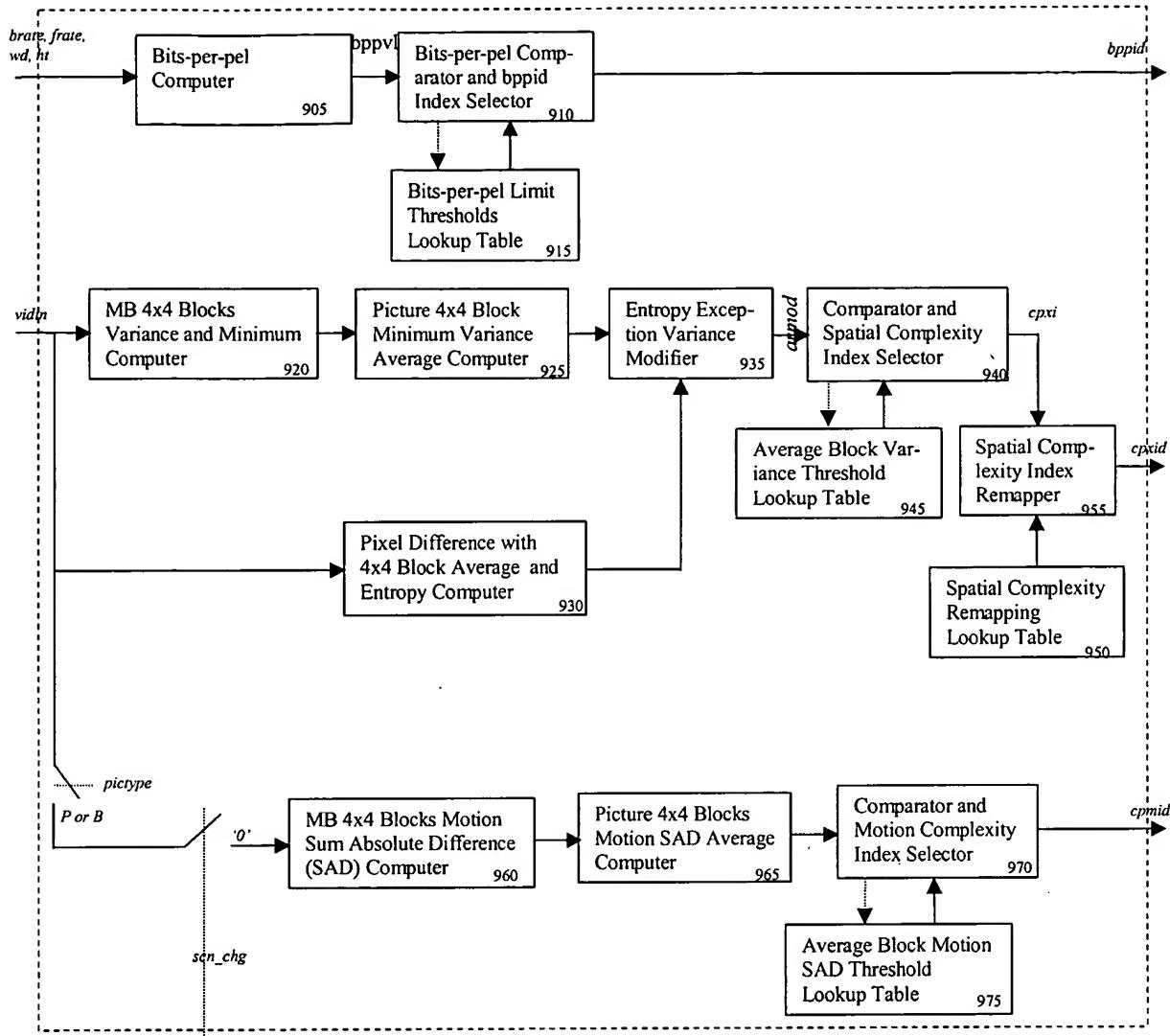


FIG. 9

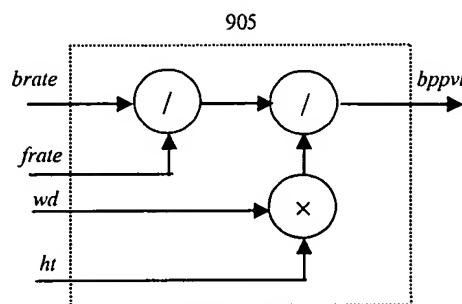


FIG. 10A

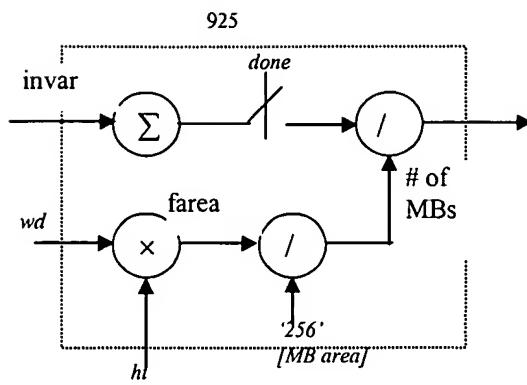


FIG. 10B

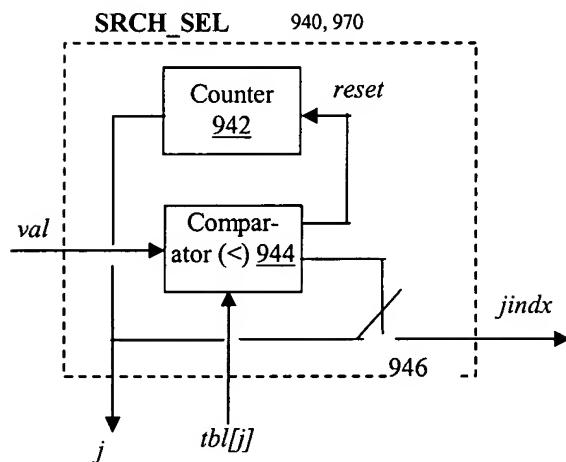


FIG. 10C

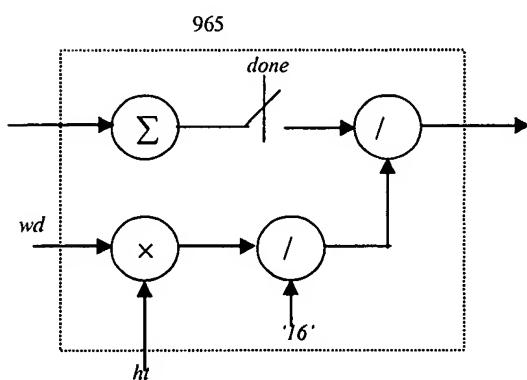


FIG. 10D

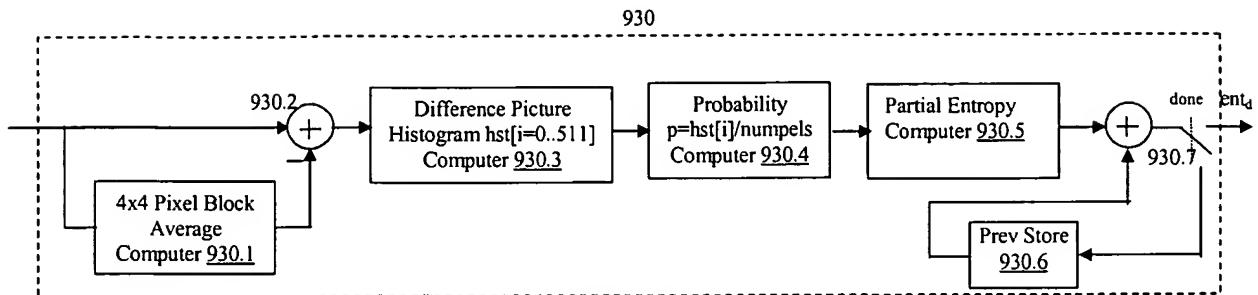


FIG. 11A

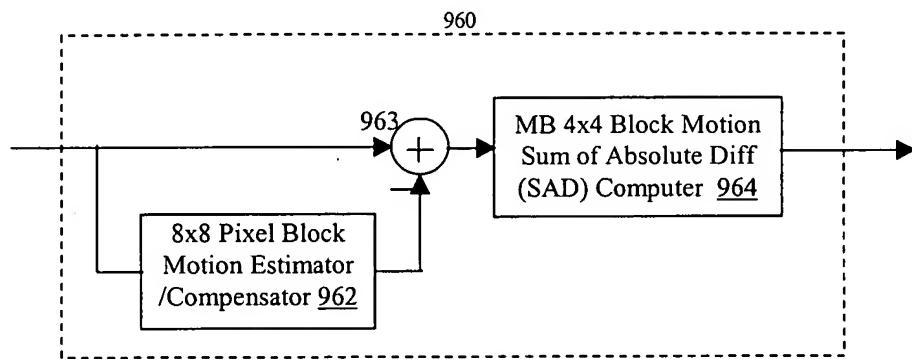


FIG. 11B

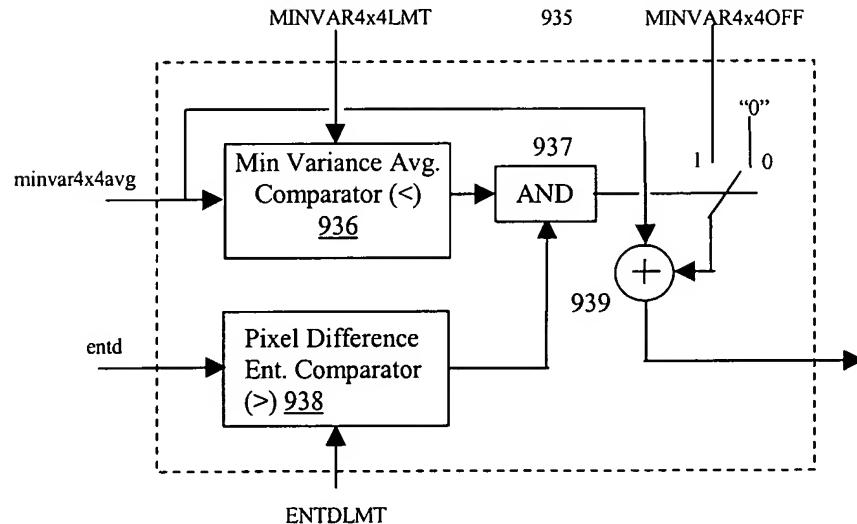


FIG. 11C

BBPID

0	1	2	3	4	5	6	7	8
0.01052	0.02104	0.04208	0.08416	0.16832	0.33664	0.67328	1.34656	2.69312

FIG. 12A - 915

CPID											
0	1	2	3	4	5	6	7	8	9	10	11
1.0	2.0	4.5	8.5	12.5	17.0	22.0	28.0	34.0	41.0	50.0	60.0

12	13	14	15	16	17
71.0	84.0	100.0	120.0	145.0	177.0

FIG. 12B - 945

CPXID								
0	1	2	3	4	5	6	7	8
1	3	5	7	9	11	13	15	17

FIG. 12C - 955

CPMID				
0	1	2	3	4
32.0	64.0	112.0	184.0	280.0

FIG. 12D - 975

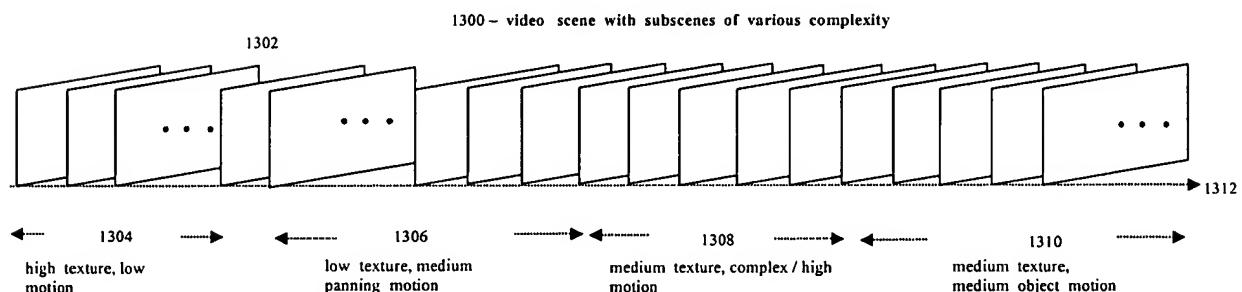


FIG. 13

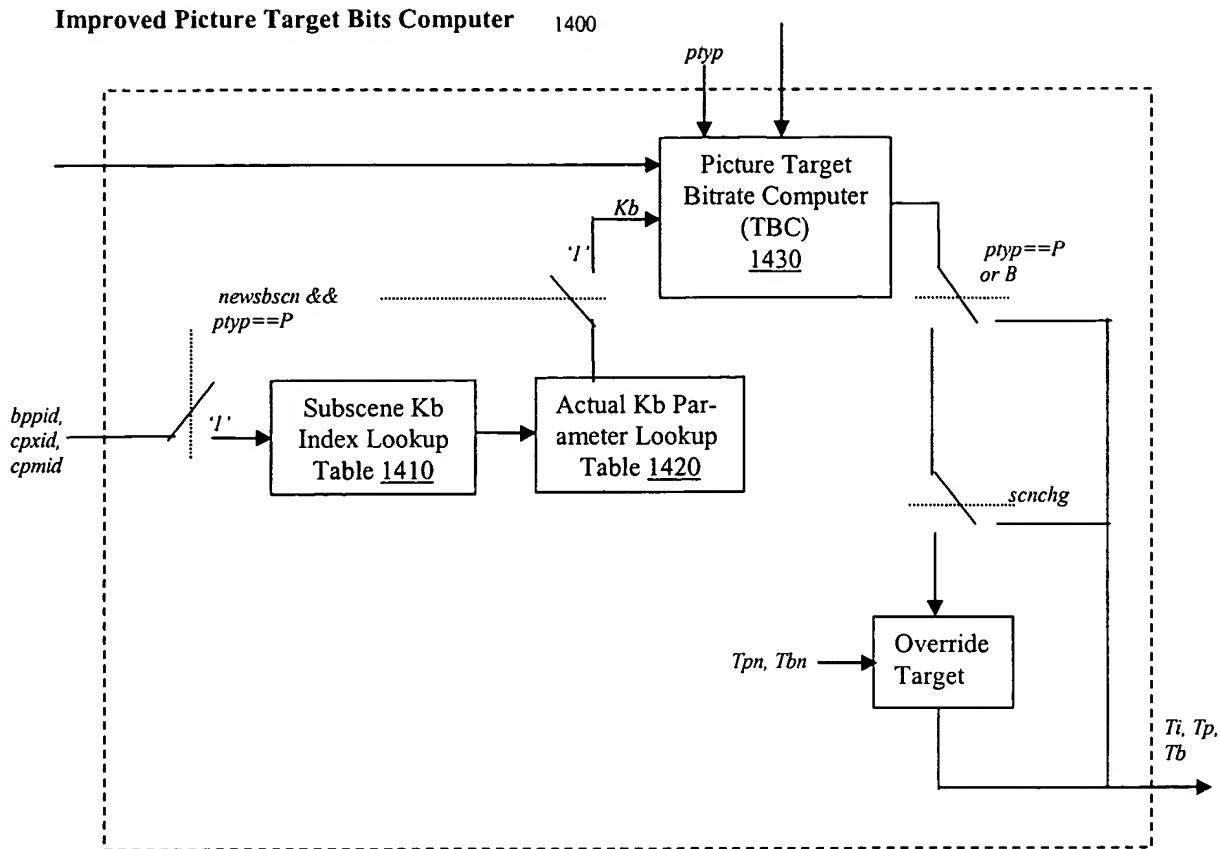


FIG. 14

KBID	0	1	2	3	4	5	6
	1.0250	1.2125	1.4000	1.5875	1.7500	1.9375	2.1250

FIG. 15A

BPPID	CPXID									CPXID								
	CPMID=2				CPMID=1					CPMID=2				CPMID=1				
	0	1	2	3	4	5	6	7	8	0	1	2	3	4	5	6	7	8
0	2	2	2	3	3	3	4	4	4	2	2	2	2	2	3	3	3	3
	1	2	2	2	2	3	3	3	4	4	2	2	2	2	2	3	3	3
	2	2	2	2	2	2	3	3	3	4	2	2	2	2	2	2	3	3
	3	2	2	2	2	2	2	3	3	3	2	2	2	2	2	2	2	3
	4	2	2	2	2	2	2	2	3	3	2	2	2	2	2	2	2	2
	5	2	2	2	2	2	2	2	2	3	1	2	2	2	2	2	2	2
	6	1	2	2	2	2	2	2	2	2	1	1	2	2	2	2	2	2
	7	1	1	2	2	2	2	2	2	2	1	1	1	2	2	2	2	2
	8	1	1	1	2	2	2	2	2	2	1	1	1	1	2	2	2	2

FIG. 15B

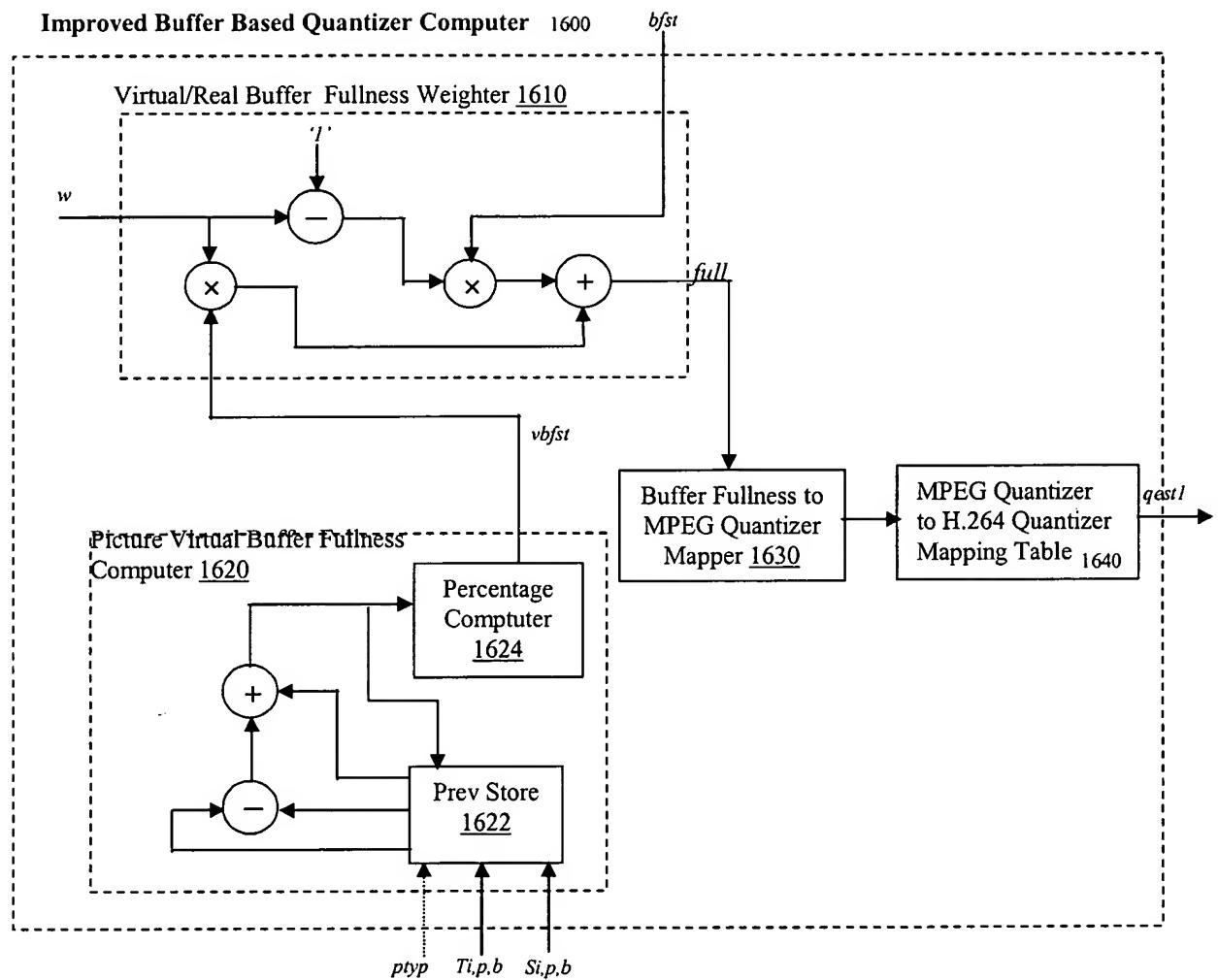


FIG. 16

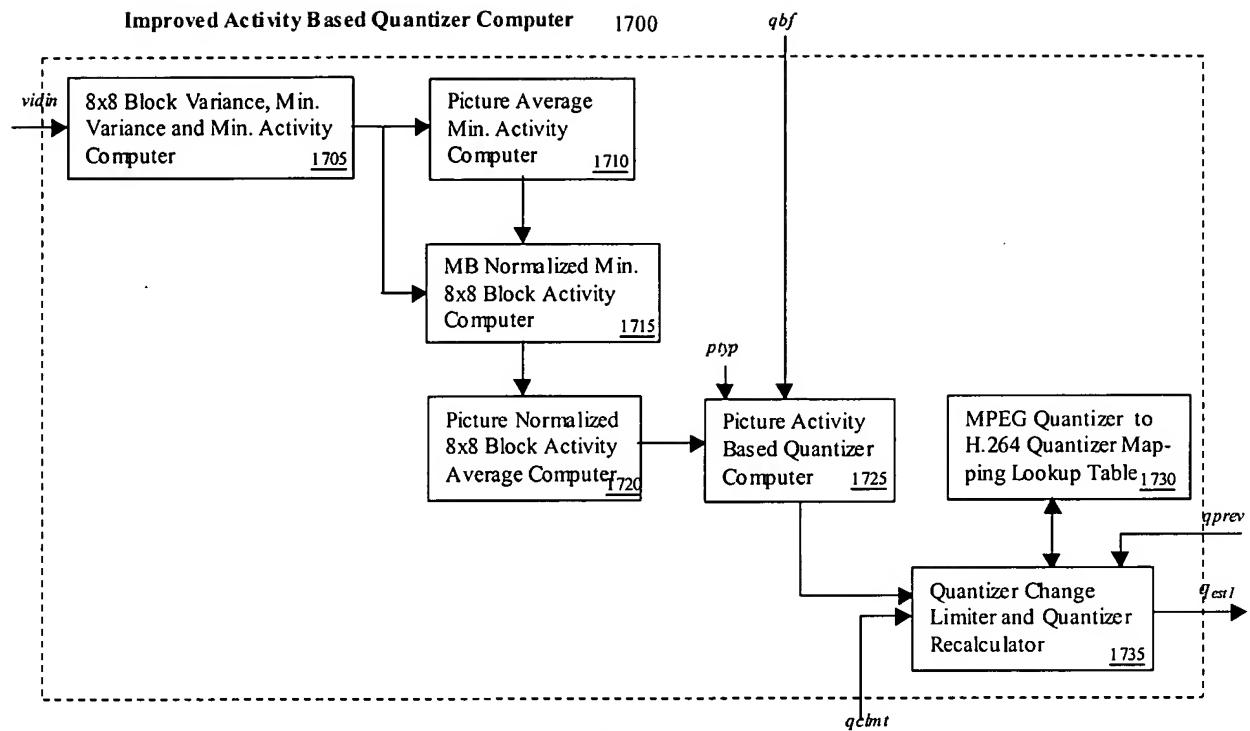


FIG. 17

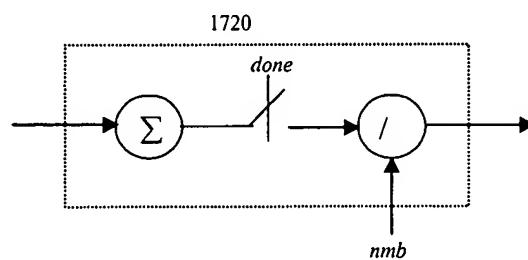


FIG. 18A

qh264

0	1	2	3	4	5	6	7	8	9	10	11	12
.250	.281	.315	.353	.396	.446	.500	.561	.623	.707	.794	.891	1.00
13	14	15	16	17	18	19	20	21	22	23	24	25
1.12	1.26	1.41	1.59	1.78	2.00	2.25	2.52	2.82	3.18	3.56	4.00	4.49
26	27	28	29	30	31	32	33	34	35	36	37	38
5.04	5.65	6.35	7.13	8.00	8.98	10.08	11.31	12.70	14.25	16.00	17.96	20.16
39	40	41	42	43	44	45	46	47	48	49	50	51
22.63	25.39	28.51	32.00	35.92	40.31	45.25	50.80	57.02	64.00	71.83	80.64	90.51

FIG. 18B

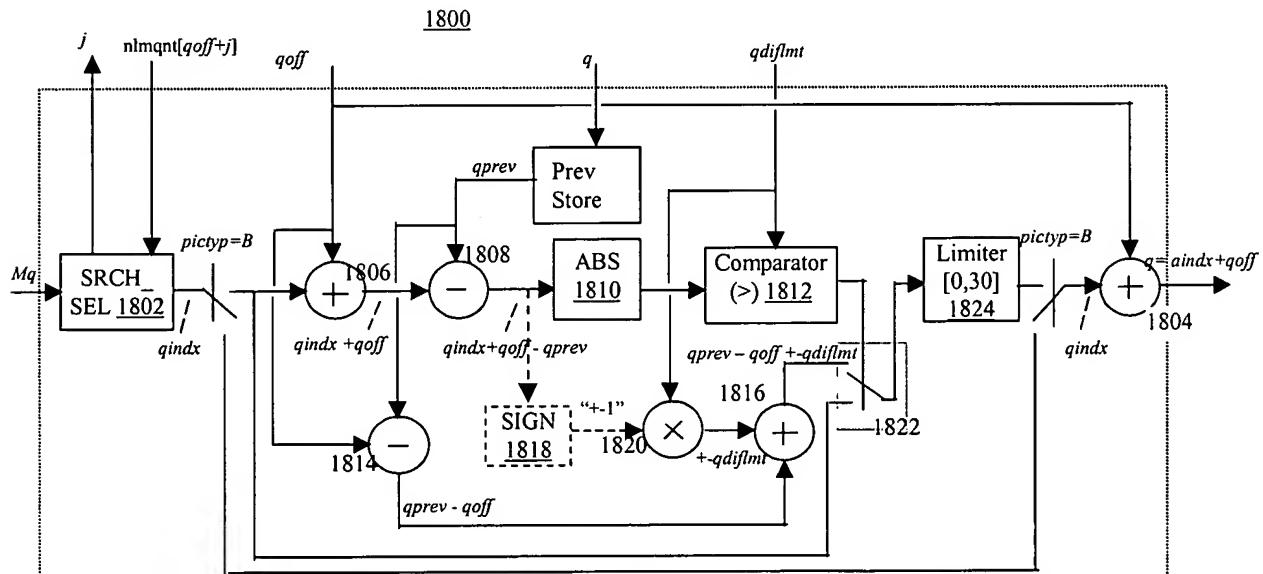


FIG. 18C

Rate Model Based Quantizer Estimator 1900

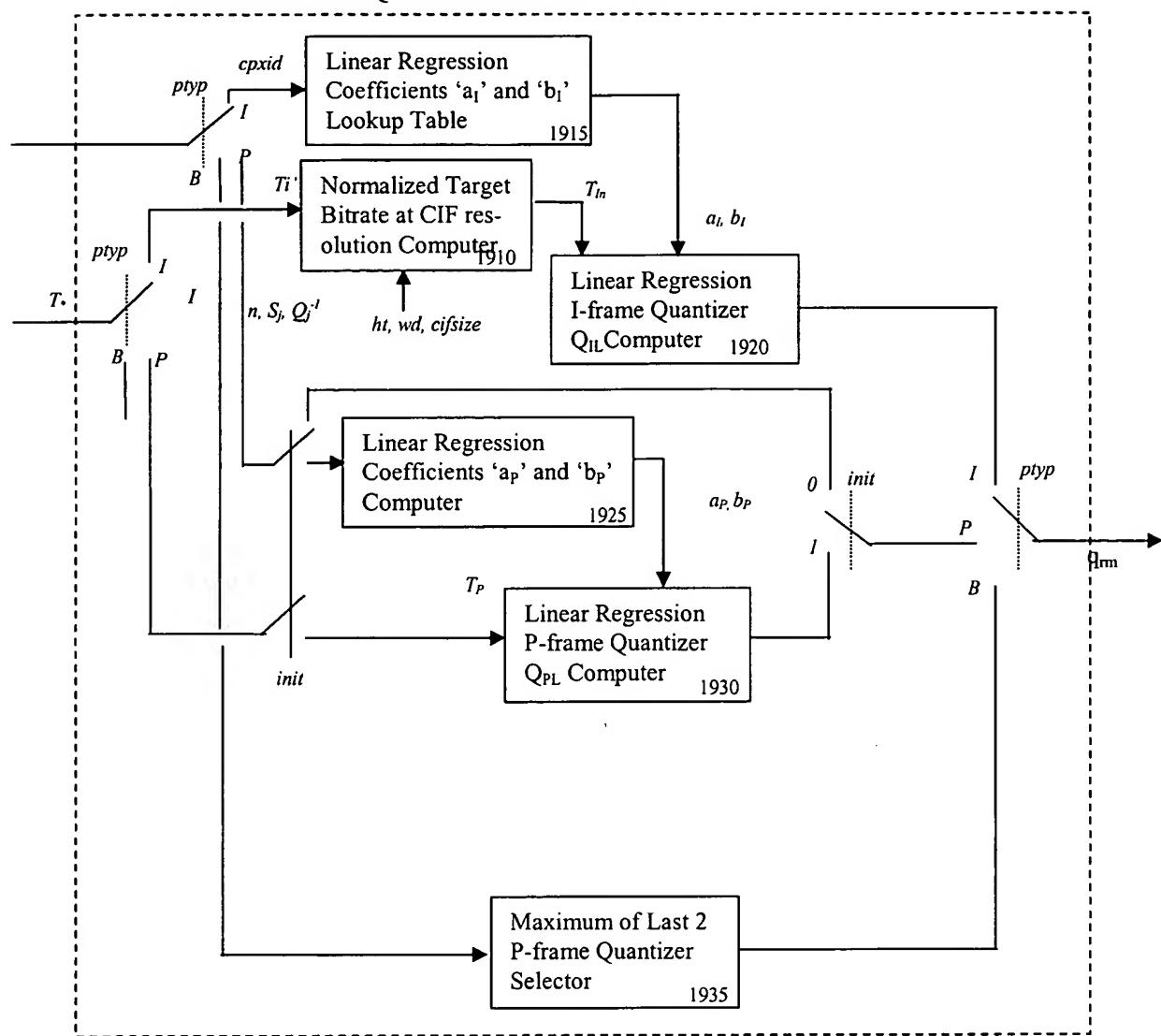


FIG. 19

CPID

0	1	2	3	4	5
-68134.59213	-87003.98467	-106202.60465	-125401.23463	-133506.23620	-141558.73699

6 7 8 9 10 11

-149611.24778	-151588.19751	-220858.39744	-293963.81117	-254808.46319	-215653.11522
---------------	---------------	---------------	---------------	---------------	---------------

12 13 14 15 16 17

-207487.50918	-1993321.90315	-191155.48428	-182989.06541	-178235.75132	-169521.36854
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FIG. 20A

CPID						
0	1	2	3	4	5	
3313453.21342	3993567.19336	4565785.16255	5138003.13174	5715464.15501	6104194.66665	
6	7	8	9	10	11	
6492925.17829	6678722.15535	9084900.80067	11517856.77655	10611605.70466	9705354.63278	
12	13	14	15	16	17	
9777071.15962	9848787.68646	9920504.21330	9992220.74014	10623397.89991	11435042.39299	

FIG. 20B

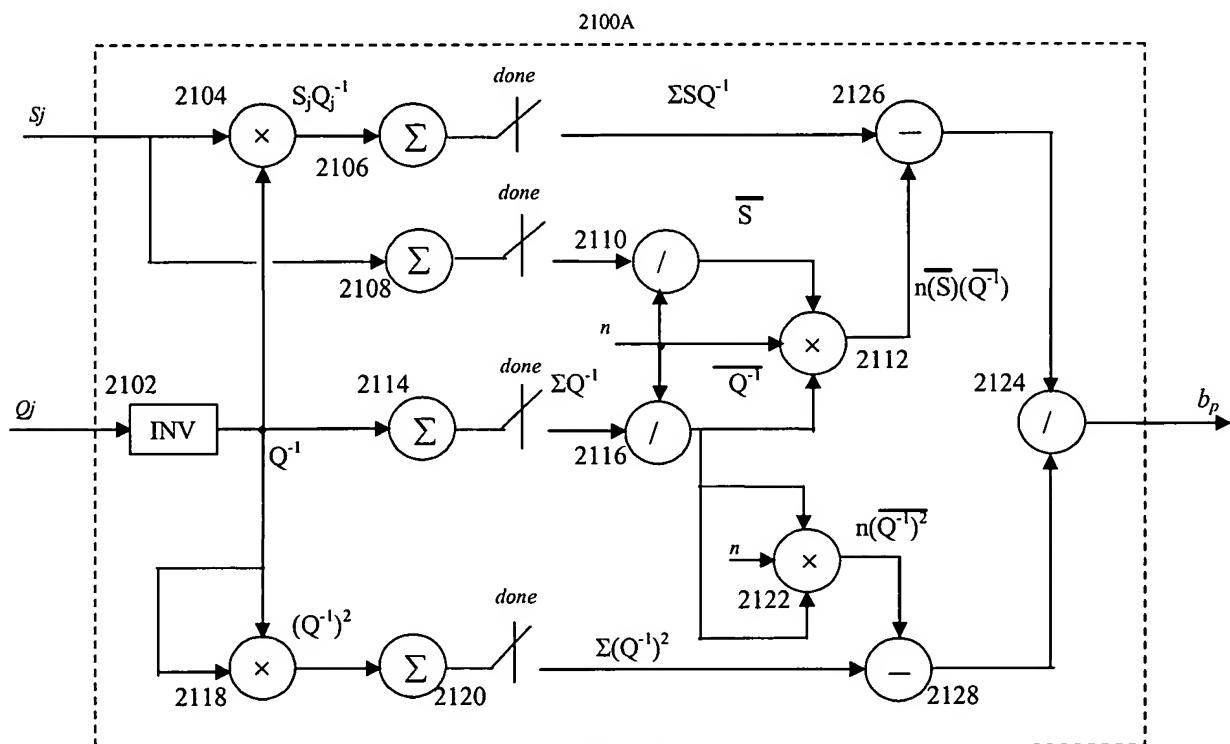


FIG. 21A

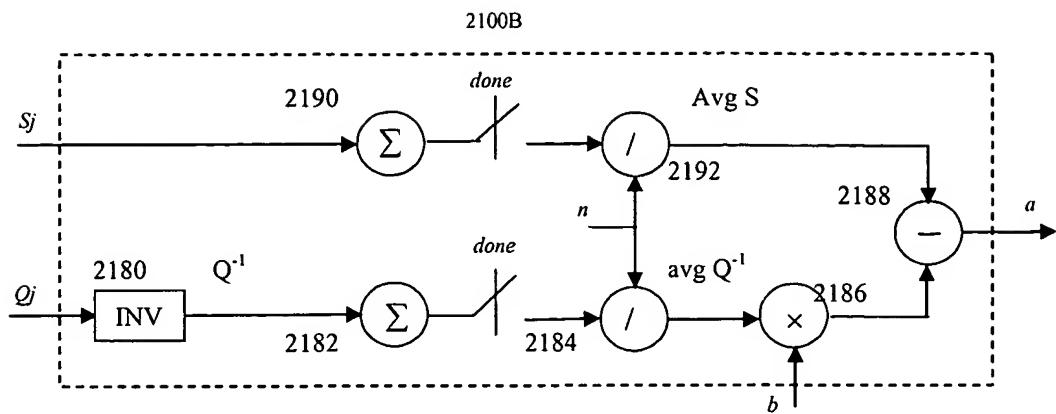


FIG. 21B

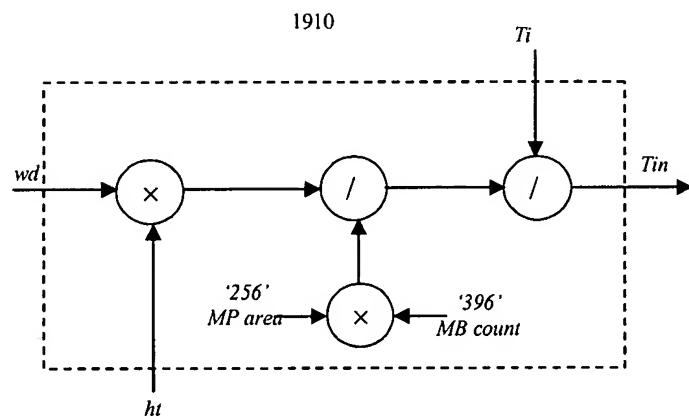


FIG. 22A

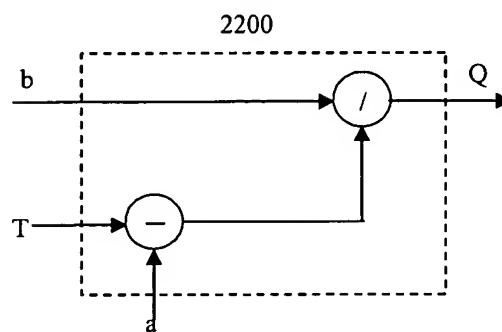


FIG. 22B

Rate Model Based Quantizer Refiner 2300

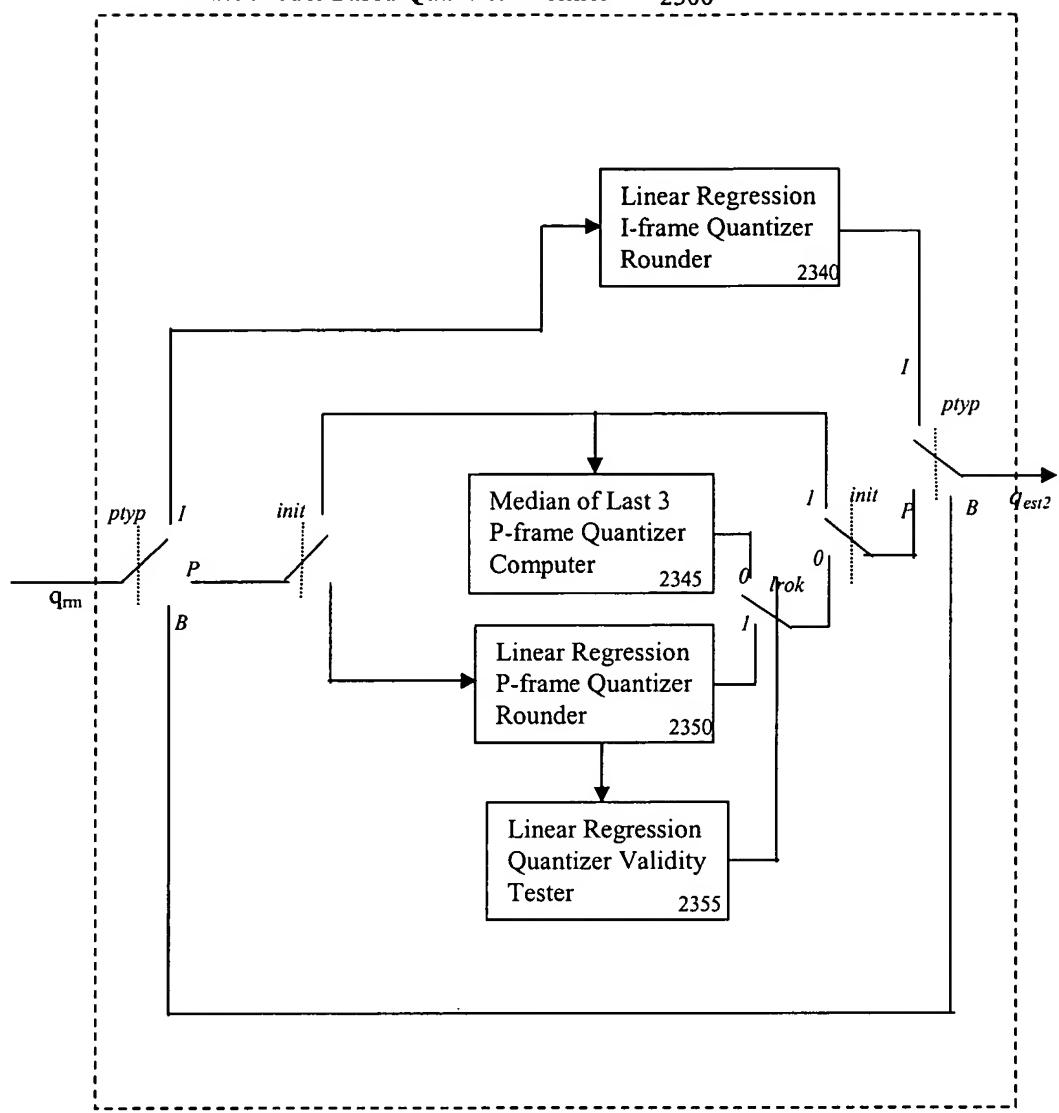


FIG. 23

2340, 2350

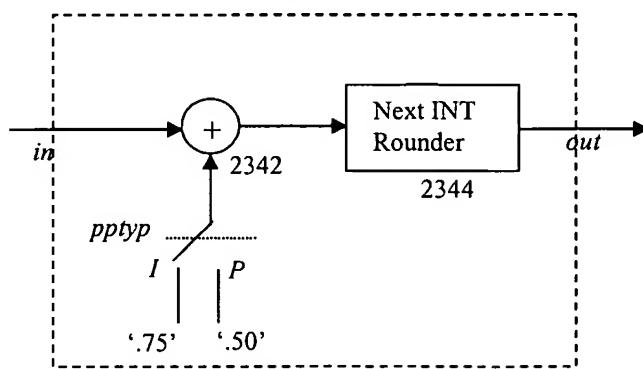


FIG. 24A

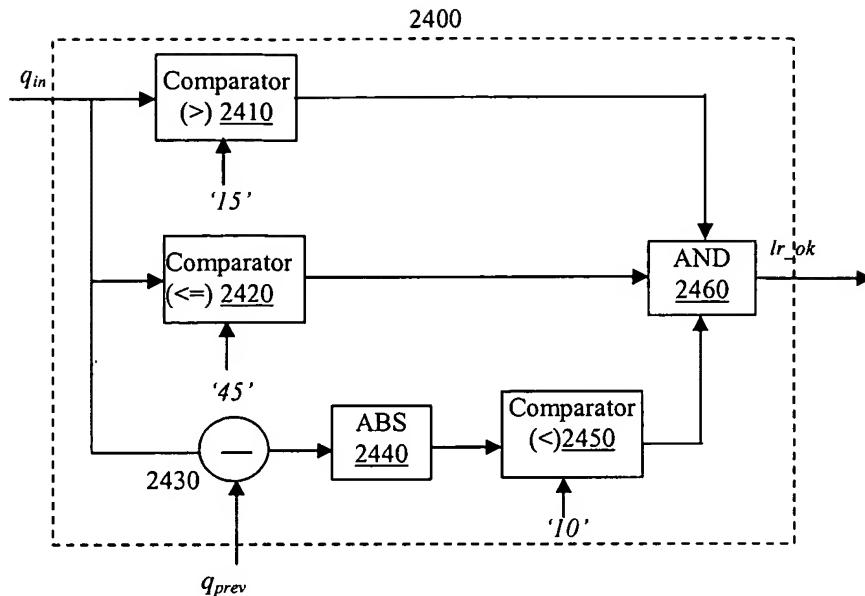


FIG. 24B

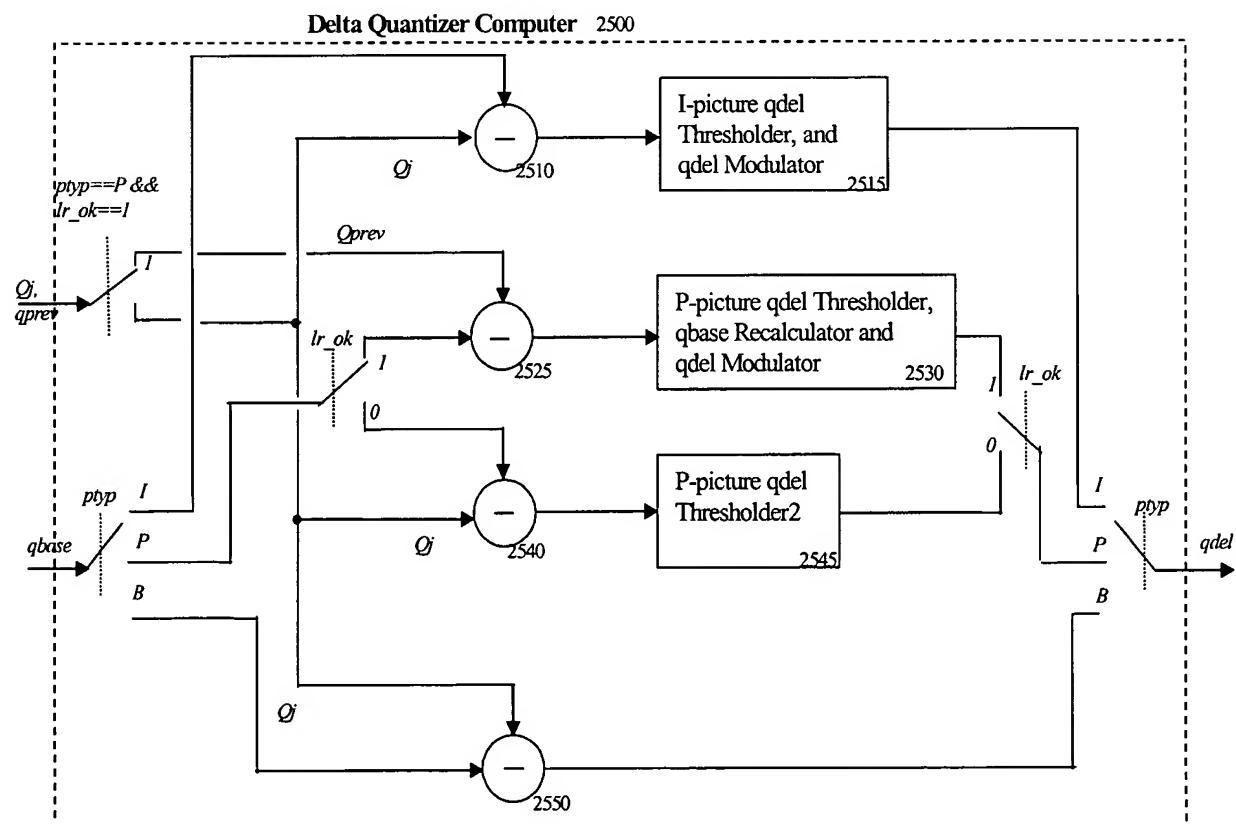


FIG. 25

2515

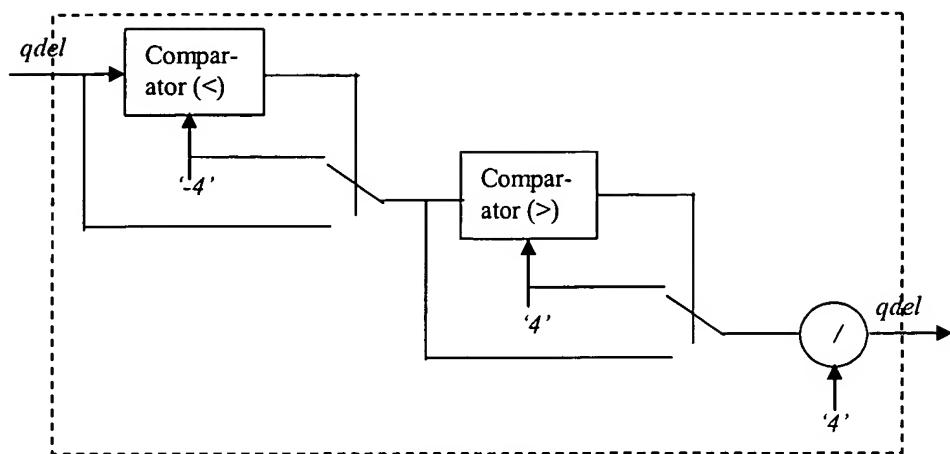


FIG. 26A

2530

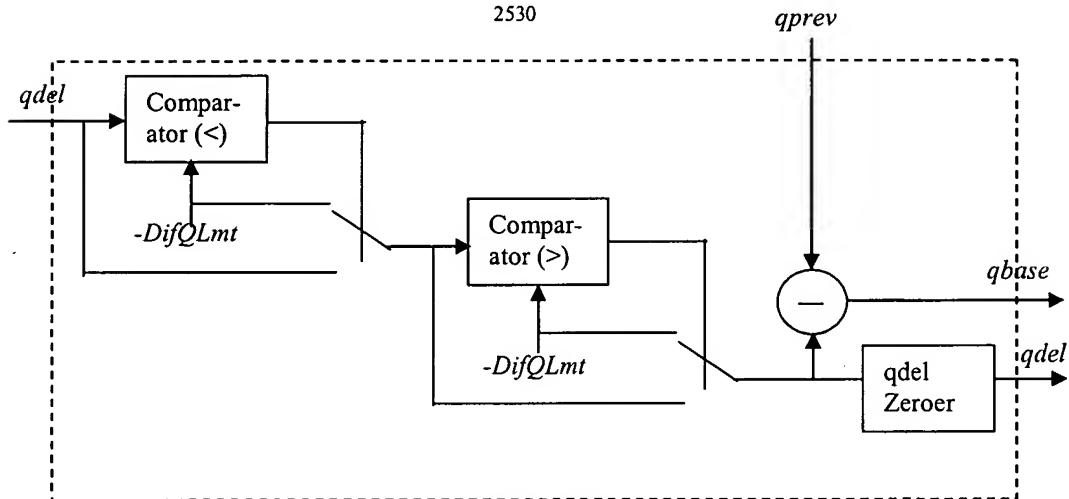


FIG. 26B

2545

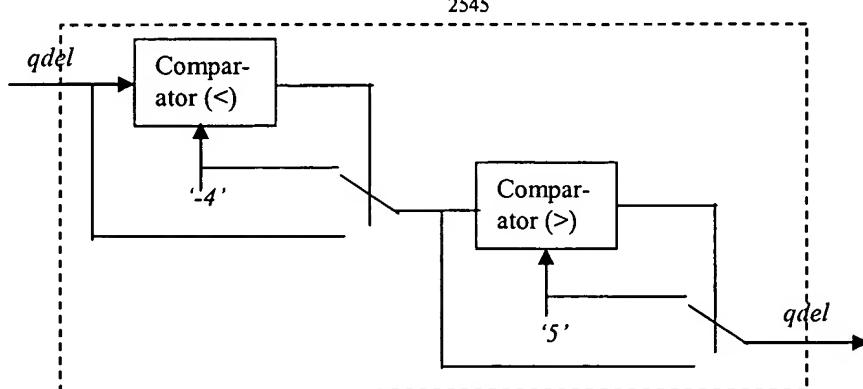


FIG. 26C

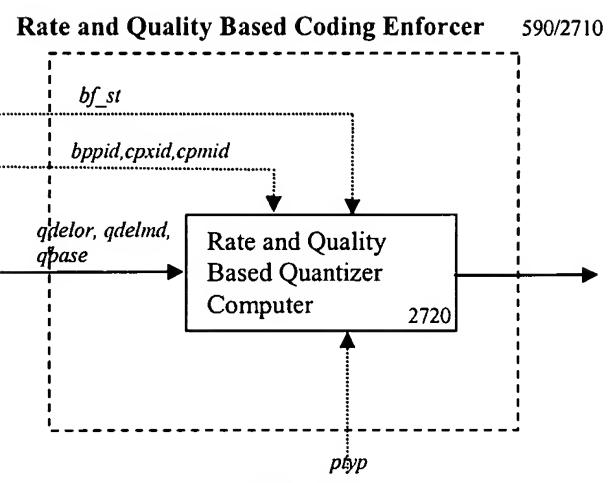


FIG. 27

Rate and Quality Based Quantizer Computer 2800

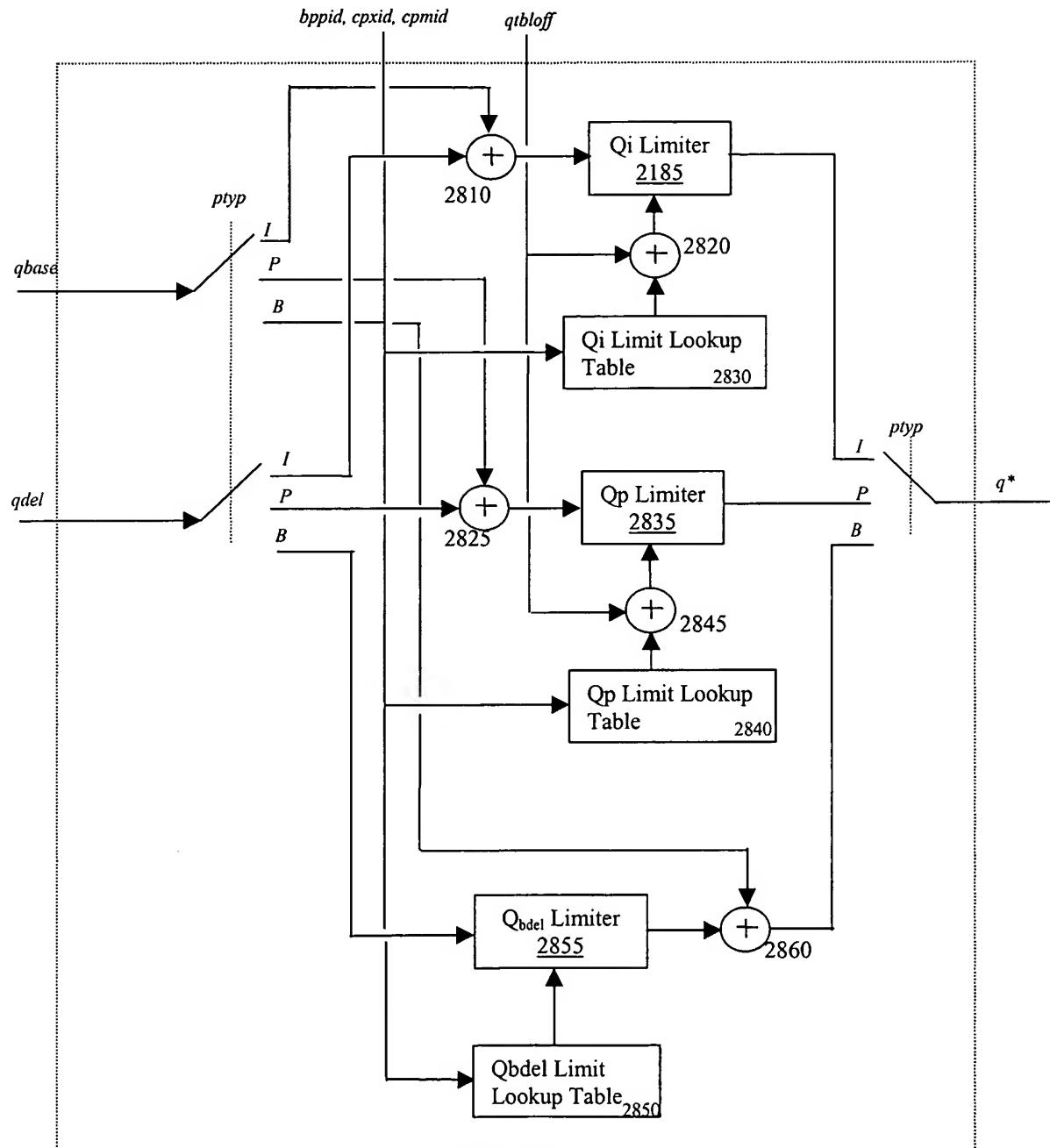


FIG. 28

		CPXID								
		0	1	2	3	4	5	6	7	8
BPPID	0	10	11	12	13	14	15	16	17	18
	1	9	10	11	12	13	14	15	16	17
	2	8	9	10	11	12	13	14	15	16
	3	7	8	9	10	11	12	13	14	15
	4	6	7	8	9	10	11	12	13	14
	5	5	6	7	8	9	10	11	12	13
	6	4	5	6	7	8	9	10	11	12
	7	3	4	5	6	7	8	9	10	11
	8	2	3	4	5	6	7	8	9	10

FIG. 29A

		CPXID								
		0	1	2	3	4	5	6	7	8
BPPID	0	10	11	12	13	14	15	16	17	18
	1	9	10	11	12	13	14	15	16	17
	2	8	9	10	11	12	13	14	15	16
	3	7	8	9	10	11	12	13	14	15
	4	6	7	8	9	10	11	12	13	14
	5	5	6	7	8	9	10	11	12	13
	6	4	5	6	7	8	9	10	11	12
	7	3	4	5	6	7	8	9	10	11
	8	2	3	4	5	6	7	8	9	10

FIG. 29B

		CPXID								
		0	1	2	3	4	5	6	7	8
BPPID	0	2	2	2	3	3	3	4	4	4
	1	2	2	2	3	3	3	3	4	4
	2	1	2	2	2	3	3	3	3	4
	3	1	1	1	2	2	2	3	3	3
	4	1	1	1	1	2	2	2	3	3
	5	0	1	1	1	2	2	2	2	3
	6	0	0	1	1	1	2	2	2	2
	7	0	0	0	1	1	1	2	2	2
	8	0	0	0	0	1	1	1	2	2

FIG. 29C

Rate and Quality Based Coding Enforcer 2 590/3000

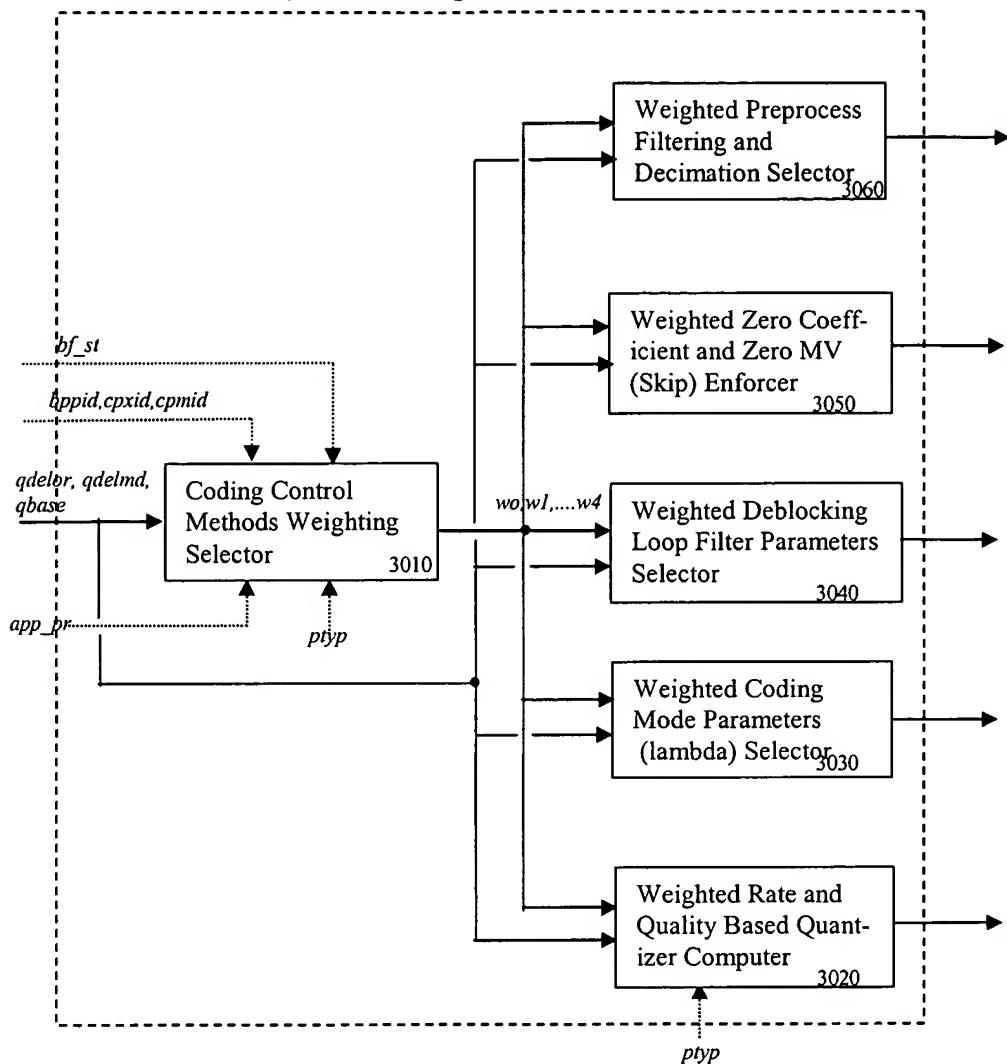


FIG. 30

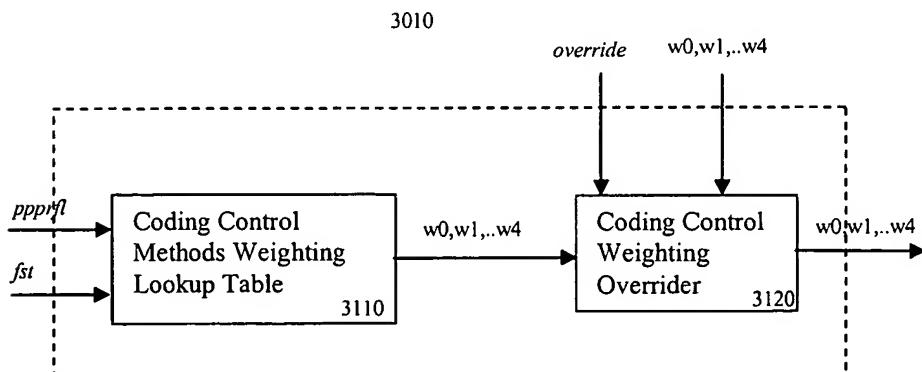


FIG. 31

FIG. 32

Weighted Rate and Quality Based Quantizer Computer 3020

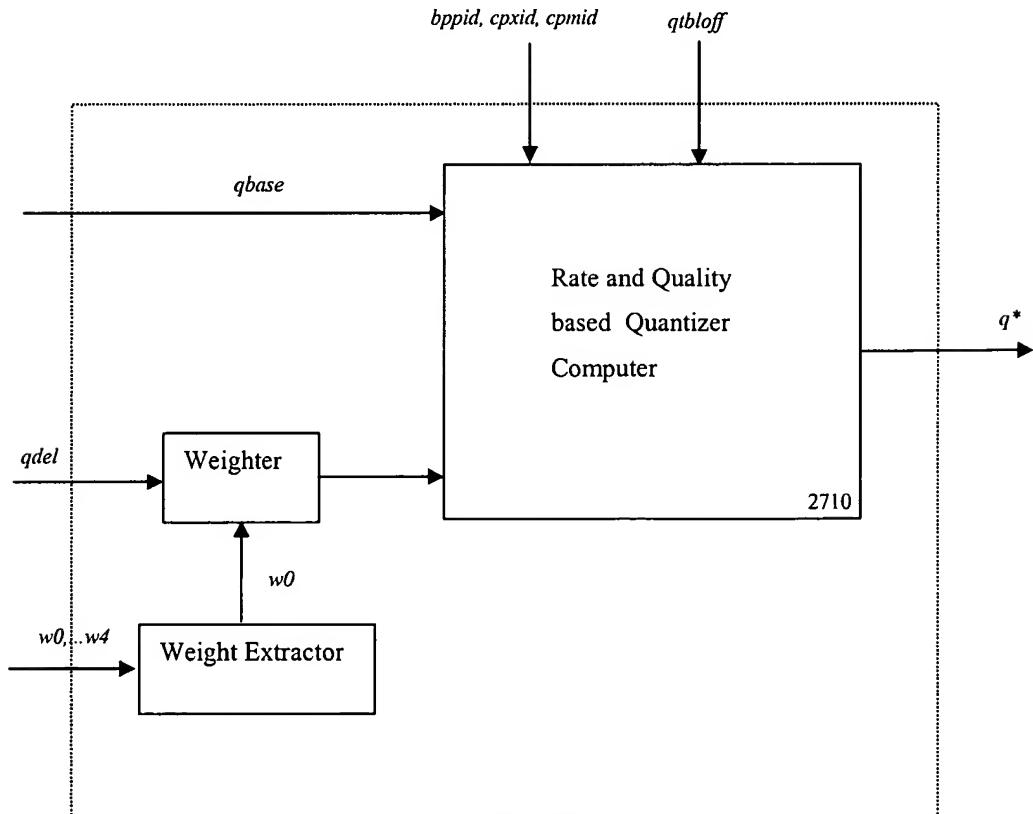


FIG. 33